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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

16 || TELESIGN CORPORATION,

Case No. 2:15-cv-03240-PSG-SS

Plaintiff,

**DEFENDANT TWILIO INC.'S
MOTION FOR JUDGMENT ON
THE PLEADINGS THAT THE
PATENTS-IN-SUIT ARE
INVALID UNDER 35 U.S.C. § 101**

18

19

20 || TWILIO INC.

21 || Defendant.

Date: March 7, 2016

Time: 1:30 p.m.

Dept.: 880

Honorable Philip S. Gutierrez

JURY TRIAL DEMANDED

1 **TO ALL PARTIES AND THEIR COUNSEL OF RECORD:**

2 PLEASE TAKE NOTICE that on March 7, 2016, at 1:30 p.m., or as soon
3 thereafter as the matter may be heard before the Honorable Philip S. Gutierrez in
4 Courtroom 880 of the United States District Court for the Central District of
5 California, Western Division, located at 255 East Temple Street, Los Angeles,
6 California, 90012-3332, Defendant Twilio, Inc. ("Twilio") will move and hereby
7 does move as follows. This motion is made following the conference of counsel
8 pursuant to L.R. 7-3, which took place on September 23, 2015.

9 **MOTION**

10 Defendant Twilio hereby moves this Court, pursuant to Federal Rule of Civil
11 Procedure 12(c), for judgment on the pleadings that U.S. Patent No. 7,945,034,
12 U.S. Patent No. 8,462,920, and U.S. Patent No 8,687,038 are invalid under 35
13 U.S.C. § 101.

14 This Motion is based on this Notice, the Memorandum of Points and
15 Authorities, the supporting declaration and exhibits filed herewith, the pleadings,
16 records, and other papers on file in this action, and upon such further evidence or
17 argument as may be presented at or before the hearing on this Motion.

19 Dated: January 5, 2016

Respectfully Submitted:

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25 By:/s/ Wayne O. Stacy
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1 **I. INTRODUCTION**

2 The Supreme Court's recent decision in *Alice Corporation v. CLS Bank*
 3 marked a major shift in the law regarding patent-eligible subject matter. As courts
 4 in this district have already recognized, many patents were drafted for an "age of
 5 patent law that no longer exists." *See Enfish, LLC v. Microsoft Corp.*, 56 F. Supp.
 6 3d 1167, 1182 (C.D. Cal. 2014). The three patents in this case are from that age
 7 that no longer exists.

8 District courts have been left to clean up the patents improperly granted by
 9 the Patent Office. And they have done so aggressively—granting more than 70%
 10 of pre-trial motions to invalidate patent claims under § 101. (*See, e.g.*, Ex. 1 at 1;
 11 Ex. 2 at 1.) Improperly granted patents have fared no better at the appellate level.
 12 The Federal Circuit invalidated patent claims in 15 of its first 16 post-*Alice*
 13 decisions. (Ex. 3 at 1.)

14 TeleSign's three patents fall squarely within the categories of patents that
 15 these courts are holding invalid. These three patents do nothing more than claim an
 16 abstract idea implemented with ordinary technology.

17 For example, TeleSign's '034 patent, which issued three years before *Alice*,
 18 claims the abstract idea of using a telephone number to authenticate and register a
 19 user. During prosecution, the Examiner twice rejected the proposed claims for
 20 failing to claim patentable subject matter even under the pre-*Alice* standard. In
 21 response, TeleSign used a pre-*Alice* strategy of incorporating conventional
 22 technology into the claims to sway the Examiner. In particular, TeleSign amended
 23 the claims to require (1) **electronically** searching a database; and (2) sending a
 24 verification message and registering the user **over a communication network**. But
 25 under *Alice*, these added limitations are now insufficient to transform an abstract
 26 idea into a patent-eligible claim. These claims would never have issued in a post-
 27 *Alice* world and should be invalidated now.

28 The other two patents-in-suit—the '920 and '038 patents—claim the abstract

1 idea of using a telephone number to confirm the identity of a previously registered
 2 user. The claims link this abstract idea to nothing more than conventional
 3 telephones and web sites. Adding conventional technology to an abstract idea no
 4 longer saves a patent. The claims of these patents, like those of the '034 patent, fail
 5 the *Alice* test and are invalid.

6 By addressing the *Alice* question at the pleading stage, the Court can resolve
 7 all issues prior to the parties and the Court investing significant resources.

8 **II. LEGAL BACKGROUND**

9 **A. The Law of Patent Eligibility After *Alice***

10 In *Alice v. CLS Bank*, the Supreme Court confirmed the two-part test for
 11 identifying patent claims directed to ineligible subject matter. 134 S. Ct. 2347,
 12 2355 (2014) (citing *Mayo*, 132 S. Ct. at 1296-97). First, the court must determine
 13 whether the claims are directed to one of the patent-ineligible concepts—laws of
 14 nature, natural phenomena, or abstract ideas. *Id.* If so, the court proceeds to the
 15 second step, and determines whether the claims “contain[] an ‘inventive concept’
 16 sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.”
 17 *Id.* at 2357 (quoting *Mayo*, 132 S. Ct. at 1294, 1298). Step one is a “‘quick look’
 18 test, the purpose of which is to identify a risk of preemption and ineligibility.”
 19 *Enfish*, 56 F. Supp. at 1173. If a claim's purpose is abstract, the court proceeds to
 20 step two, and takes a closer look at the specific elements of the claims. *Id.* at 1174;
 21 *Cal. Inst. of Tech. v. Hughes Commc'nns Inc.*, No. 2:13-cv-07245-MRP-JEM, 2014
 22 WL 5661290, at *13 (C.D. Cal. Nov. 3, 2014).

23 The required technological limitations must appear in the patent claims
 24 themselves. Like other requirements for patentability, the § 101 analysis looks to
 25 individual claims, not a patent as a whole. *See Alice*, 134 S. Ct. at 2355. It is
 26 generally irrelevant whether a patent's specification describes inventive,
 27 technological limitations. The question is whether each claim contains such
 28 limitations and thereby restricts itself to patent-eligible subject matter. *See*

1 *Accenture Global Servs. v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed.
 2 Cir. 2013); *Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1344 (Fed. Cir. 2013).

3 All limitations in a particular claim need not be abstract. A patent claim
 4 satisfies the first step of the two-part test if “the concept embodied by the majority
 5 of the limitations” describes an abstract idea. *See Ultramercial, Inc. v. Hulu, LLC*,
 6 772 F.3d 709, 715 (Fed. Cir. 2014) (“*Ultramercial III*”) (holding that “[a]lthough
 7 certain additional limitations, such as consulting an activity log, add a degree of
 8 particularity, the concept embodied by the majority of the limitations describes only
 9 the abstract idea of showing an advertisement before delivering free content”). In
 10 contrast to a purely abstract idea, a particular application of an idea may be
 11 patentable. However, a specific application of an otherwise unpatentable idea is
 12 only patentable if the claims add “significantly more.” *Alice*, 134 S. Ct. at 2355
 13 (quoting *Mayo*, 132 S. Ct. at 1294).

14 **B. Patent Eligibility Is a Threshold Issue Appropriately Decided on a
 15 Rule 12(c) Motion for Judgment on the Pleadings**

16 Whether a patent claims patent-eligible subject matter under § 101 is a
 17 “threshold inquiry” and “an issue of law.” *In re Bilski*, 545 F.3d 943, 950-51 (Fed.
 18 Cir. 2008), *aff’d*, *Bilski v. Kappos*, 561 U.S. 593 (2010); *see also Dealertrack, Inc.*
 19 *v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012). Many courts have held that the
 20 determination of patent eligibility can be made on the pleadings. *See, e.g.*,
 21 *Ultramercial III*, 772 F.3d 709 (12(b)(6) dismissal); *buySAFE, Inc. v. Google, Inc.*,
 22 765 F.3d 1350 (Fed. Cir. 2014) (judgment on the pleadings); *McRO, Inc. v. Sega of*
 23 *Am.*, No. 12-cv-10327, 2014 WL 4749601 (C.D. Cal. Sept. 22, 2014) (judgment on
 24 the pleadings); *Open Text S.A. v. Alfresco Software Ltd.*, No. 13-cv-04843, 2014
 25 WL 4684429 (N.D. Cal. Sept. 19, 2014) (12(b)(6) dismissal); *Cogent Medicine, Inc.*
 26 *v. Elsevier*, No. C-13-4479, 2014 WL 4966326 (N.D. Cal. Sept. 30, 2014) (Whyte,
 27 J.) (12(b)(6) dismissal). A § 101 determination need not wait for formal claim
 28 construction proceedings. *See Content Extraction & Transmission LLC v. Wells*

1 *Fargo Bank*, 776 F.3d 1343, 1349 (Fed. Cir. 2014) (“claim construction is not an
 2 inviolable prerequisite to a validity determination under § 101”).

3 **III. THE '034 PATENT IS INVALID UNDER 35 U.S.C. § 101**

4 At its core, the '034 patent relates to the concept of authentication (*i.e.*,
 5 verifying a person’s identity) using a phone number. (*See* D.I. 1-1, '034 patent,
 6 Title, Abstract.) The specification reflects this, noting that authentication is
 7 “fundamental” (*id.*, 1:30-31) and emphasizing the importance of verifying a website
 8 user’s phone number (*id.*, 1:64:2-2). Because the claims of the '034 patent merely
 9 implement this abstract idea using a modern telephone system—by requiring a
 10 “communications network” and an “electronic” determination using a database—
 11 they fail to add an inventive concept sufficient to transform the abstract concept
 12 into patent-eligible subject matter.

13 **A. Factual Background for the '034 Patent**

14 The '034 patent, titled “Process for Determining Characteristics of a
 15 Telephone Number,” was filed on October 31, 2005, and issued on May 17, 2011.
 16 The '034 patent relates to a method for verifying a website user’s identity based on
 17 the user’s telephone number. ('034 patent, 1:7-11.)

18 **1. The '034 Patent Claims**

19 In its Amended Complaint, TeleSign refers specifically only to independent
 20 claim 1 and dependent claims 4 and 6 of the '034 patent. Those claims recite the
 21 following limitations:

22 1. A process for telephonically registering a user over one or more
 23 communication networks through determining characteristics of a
 24 telephone number, comprising the steps of:

25 **receiving a telephone number;**

26 **electronically determining** the type of phone, the phone carrier and
 27 geographic characteristics associated with the telephone number;

connecting to a telephone associated with the telephone number through at least one of the communication networks;

communicating a verification message with the telephone over at least one of the communication networks; and

registering the user through at least one of the communication networks based on the type of phone, the phone carrier, the geographic characteristics associated with the telephone number and the verification message.

4. The process of claim 1, wherein the determining the **phone type characteristic** comprises determining whether the telephone number is associated with a landline telephone, cellular telephone, or a voice over internet protocol telephone.

6. The process of claim 1, wherein determining the **geographic characteristics** includes the step of determining at least one of the time zone, country, state, county, city, zip code and metro area of the phone number.

16 ('034 patent, cls. 1, 4, 6 (emphases added).) Thus, the '034 patent claims require
17 “electronically determining” certain characteristics of a telephone number, sending
18 a “verification message” to the telephone number, and “registering the user” based
19 on the characteristics of the telephone number and the verification message.

2. The '034 Patent Specification

21 The '034 patent acknowledges that requiring website users to identify
22 themselves was well known at the time the patent was filed in 2005. ('034 patent,
23 1:14-18.) The patent also acknowledges that verifying a user's identity was
24 "fundamental." (*Id.*, 1:30-34 ("Authentication is fundamental to every Internet
25 transaction. Individuals and businesses who wish to engage in trade online must
26 authenticate themselves by reliably establishing their identity, and presenting
27 credentials as proof of that identity.").)

The specification characterizes the problem addressed by the purported

1 invention as follows:

2 [T]here is a continuing need for a method to verify a registrant's
 3 identity using the registrant's telephone number. There is also a
 4 continuing need to obtain information and characteristics of a
 5 telephone number to determine if the information provided is
 6 fraudulent.

7 (*Id.*, 1:64-67.) The '034 patent's solution is "a process for verifying an online
 8 registration utilizing a telephone connection separate from the online connection in
 9 order to verify the identity of a registrant, . . . , as well as a process for determining
 10 characteristics of a telephone number." (*Id.*, 3:35-40.)

11 3. **'034 Patent File History**

12 During prosecution of the '034 patent, the Patent Office twice rejected all
 13 claims as directed to non-statutory subject matter under 35 U.S.C. § 101. The
 14 Examiner initially rejected the pending claims because they were not tied to an
 15 apparatus or machine. (Ex. 4 at 4 ('034 patent file history 11/5/09 office action).)
 16 In response, the applicant amended the claims "to clarify that the determination of
 17 the phone number characteristics are used to telephonically register a user
 18 application ***over a telephone communication network.***" (*Id.* at 14 (2/3/10 office
 19 action response) (emphasis added).)

20 In a subsequent office action, the Patent Office again rejected the claims
 21 under § 101, at least in part because they were directed to a mental process:

22 While the instant claims recite a series of steps or acts to be
 23 performed, the claim neither transforms underlying subject matter nor
 24 is positively tied to another statutory category that accomplishes the
 25 claimed method steps, and therefore does not qualify as a statutory
 26 process. ***For example the process to register a user including steps***
 27 ***of receiving, determining, connecting and registering is of sufficient***

28

1 ***breadth that it would be reasonably interpreted as a series of steps***
 2 ***completely performed mentally, verbally or without a machine.***

3 (Id. at 28 (10/14/10 office action) (emphasis added).)

4 To overcome this second § 101 rejection, the applicant amended the claims
 5 for a second time, to require (1) that the “communicating” and “registering” steps
 6 occur over “at least one of the communication networks;” and (2) that the
 7 determining step be performed “electronically.” (Id. at 34-40 (12/23/10 office
 8 action response).) In arguing that the amended claims satisfied the machine-or-
 9 transformation test of *Bilski*, the applicant explained that the amended claims
 10 “require[d] communication through one or more communication networks such that
 11 certain characteristics of the telephone can be determined electronically - and not
 12 simply mentally, verbally or without a machine.” (Id. at 41 (12/23/10 office action
 13 response).) In addition, the applicant emphasized that, with the addition of the
 14 word “electronically” to the “determining” limitation, “the claimed process is
 15 specifically tied to a particular apparatus - i.e. telephone communication
 16 devices/networks and *electronic databases*.” (Id. (emphasis added).)

17 The claims were allowed following this second amendment to the claims.
 18 (Id. at 42-44 (3/11/11 Notice of Allowance).) Thus, to overcome the Examiner’s
 19 rejections under § 101, the applicant relied on the addition of two features to the
 20 claims that ultimately issued with the ’034 patent: (1) a telephone communication
 21 device/network; and (2) an electronic database.

22 **4. State of the Art in 2005**

23 When the ’034 patent was filed in 2005, the idea of verifying a user’s
 24 telephone number was well known. For many decades, telephone-related
 25 information, such as the name, address, and phone number associated with a
 26 particular telephone line, had been stored in various directories such as phone
 27 books. (See, e.g., Ex. 5 (Wikipedia entry for “telephone directory”).) Phone books
 28 from certain eras contained only landline phone numbers (see, e.g., ’034 patent,

1 1:46-49), and were published by the telephone service provider responsible for a
 2 particular service area. (*See, e.g.*, Ex. 5.) For example, Pacific Bell and the other
 3 “Baby Bells” published and distributed phone books for the geographic areas they
 4 served. (*See, e.g.*, *id.*; Ex. 6 (Wikipedia entry for “Regional Bell Operating
 5 Company”).) U.S. telephone directories were available online before 2005. (*See,*
 6 *e.g.*, Ex. 5.)

7 Looking up a name or phone number in a directory has long been a common
 8 practice. In the past, the area code of a ten-digit phone number identified the
 9 general geographic region associated with a phone number, and the next three digits
 10 identified the telephone exchange that served that number. (*See, e.g.*, Exs. 7-8,
 11 (Wikipedia entries for “telephone prefix” and “telephone exchange”,
 12 respectively).) Since each exchange served a particular geographic area and was
 13 operated by a particular service provider (*e.g.*, one of the Baby Bells), one would
 14 know which phone book to use based on the phone number itself. Thus, for a
 15 landline phone number, the phone book that lists that number typically identified
 16 not only the name and address associated with that number, but also the type of
 17 phone (*i.e.*, landline) and carrier (*i.e.*, the phone book publisher) associated with the
 18 number.

19 **B. *Alice Step 1: Claim 1 of the '034 Patent Is Directed to an Abstract***
 20 **Idea**

21 The claims of the '034 patent are directed to the abstract idea of using a
 22 phone number to authenticate and register a user. Representative claim 1 merely
 23 breaks up this abstract idea into a series of basic steps. *See Ultramercial III*, 772
 24 F.3d at 714. Stripped of its generic technology components, there is nothing more
 25 than the idea of looking up the user’s telephone number in a directory to verify
 26 address-like information and then calling the number to confirm the owner’s
 27 identity. As the hypothetical below makes clear, other than the conventional steps
 28

1 of communicating by phone over a network and searching a database, every
 2 limitation of claim 1 can be performed solely by human activity:

'034 patent, claim 1	Human activity
4 A process for telephonically 5 registering a user over one or 6 more communication networks 7 through determining 8 characteristics of a telephone 9 number, comprising the steps of:	[Even if the preamble is limiting, it merely makes clear that the claim requires communication over a telephone network.]
10 receiving a telephone number; 11 12 13	Alice sends her phone number to Bob, for example in an application for a credit card or a library card. Or Bob receives Alice's number from Caller ID.
14 electronically determining the type of 15 phone, the phone carrier and 16 geographic characteristics associated 17 with the telephone number; 18 19 20 21 22 23 24 25 26	Bob looks up Alice's phone number in a traditional phone book to see Alice's address. As discussed in Section III.A.4 above, Bob knows the carrier and geographic area associated with Alice's number (and thus which phone book to use) based on the area code and/or next three digits of Alice's number. The phone book itself identifies the carrier who published it, for example Pacific Bell or Southwestern Bell, and lists only landline phone numbers.
27 connecting to a telephone associated	Bob calls Alice at the phone number she

28

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	with the telephone number through at least one of the communication networks;	provided.
4 5 6 7 8 9 10 11 12 13 14 15	communicating a verification message with the telephone over at least one of the communication networks; and	Bob asks Alice for the answer to a challenge question, such as the last four digits of her social security number, and Alice answers the question.
16 17 18 19 20 21 22 23 24 25 26 27 28	registering the user through at least one of the communication networks based on the type of phone, the phone carrier, the geographic characteristics associated with the telephone number and the verification message.	After confirming Alice's information and the last four digits of her social security number, Bob enters Alice's name in a register. Bob could go a step further and grant Alice access to a resource, such as a financial account or local library.

The only difference between the limitations of claim 1 and the long-practiced human activity that mirrors them is the use of an electronic database to look up the location, carrier, and type of phone associated with Alice's phone number.

Recent Supreme Court and Federal Circuit decisions leave no doubt that the idea claimed by the '034 patent—using a phone number to authenticate and register a user—is abstract. In *Alice*, the Supreme Court held that fundamental principles for “organizing human activity” are abstract ideas. *Alice*, 134 S. Ct. at 2356-57. Using a telephone number to verify a person's identity is a “longstanding commercial practice,” and as such is a “method of organizing human activity.” *See id.* The Court in *Bilski* invalidated claims for the use of a computer intermediary that allowed a consumer with a computer to perform the same task that “would presumably have been done by a human broker in the prior art.” *Bilski v. Kappos*, 130 S. Ct. 3218, 3218 (2010). Even before *Alice*, the Federal Circuit found that

1 claims for detecting credit card fraud using “Internet address” information (e.g., IP
 2 addresses or e-mail addresses) were drawn to the abstract idea of “detecting credit
 3 card fraud based on information relating past transactions to a particular ‘Internet
 4 address.’” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed.
 5 Cir. 2011).

6 Various district courts also have held that ideas similar to those claimed in
 7 the ’034 patent are abstract. For example, one court invalidated claims to a
 8 communication system that included a telephone unit and a server because the
 9 claims covered “the abstract idea of taking, organizing, classifying, and storing
 10 photographs.” *In re TLI Comm’ns LLC Patent Lit.*, 87 F. Supp. 3d 773, 785 (E.D.
 11 Va. 2015). In this district, Judge Guilford recently found that claims enabling
 12 borrowers to anonymously shop for loans were directed to the abstract idea of
 13 “allowing users to assess their borrowing ability without revealing their identities to
 14 the lenders until they wish to do so.” *Mortgage Grader, Inc. v. Costco Wholesale*
 15 *Corp.*, No. SACV-13-00043-AG, 2015 WL 778125, at *6 (C.D. Cal. Jan. 12,
 16 2015). And this Court has held that the concept of “paying down a mortgage early
 17 when funds are available and borrowing funds as needed to reduce the overall
 18 interest charged by the mortgage” is an unpatentable abstract idea. *CMG Financial*
 19 *Servs., Inc. v. Pac. Trust Bank, F.S.B.*, 50 F. Supp. 3d 1306, 1325 (C.D. Cal. 2014).

20 The prosecution history further confirms that the ’034 patent claims are
 21 directed to the abstract idea of using a telephone number to authenticate and register
 22 a user. As explained in Section III.A.3 above, the Patent Office twice rejected the
 23 claims under § 101. To overcome those rejections, the applicant amended the
 24 claims to add a database (indicated by the “**electronically** determining” element)
 25 and a communications network. As shown in the table below, these claim
 26 amendments simply added basic elements that were well known in the art by 2005:
 27
 28

Claim 1 As Issued After December 23, 2010 Amendments

A process for telephonically registering a user over one or more communication networks through determining characteristics of a telephone number, comprising the steps of:

receiving a telephone number;

electronically determining the type of phone, the phone carrier and geographic characteristics associated with the telephone number;

connecting to a telephone associated with the telephone number through at least one of the communication networks;

communicating a verification message with the telephone over at least one of the communication networks; and

registering the user through at least one of the communication networks based on the type of phone, the phone carrier, the geographic characteristics associated with the telephone number and the verification message.

Thus, for claim 1 as issued, the sole features the patentee added to overcome the second § 101 rejection were (1) the requirement of communication *over/through a communication network*; and (2) the requirement that various characteristics of a phone number be determined *electronically*. With respect to the first of these features, the applicant emphasized that the claimed process could not be performed without a telephone connected to a network. (Ex. 4 at 41 ('034 patent file history, 12/23/10 office action response).) As for the second of these two features, the applicant argued that the addition of the term “electronically” to the “determining” step required the use of an electronic database: “[T]he claimed process is specifically tied to a particular apparatus – i.e. telephone communication devices/networks and *electronic databases*.” (*Id.* (emphasis added).) But, as explained in more detail in Section III.C below, *Alice* and its progeny—which were

1 not decided until well after the Patent Office allowed the claims of the '034
 2 patent—hold that the addition of basic elements like a network and a database are
 3 insufficient to transform an abstract idea into a patent-eligible claim.

4 In short, the abstract idea of verifying a person's identity using a phone
 5 number has been a “tool” in the “storehouse of knowledge” that is “free to all men
 6 and reserved exclusively to none” at least since the introduction of the phone book.
 7 *See Bilski*, 561 U.S. at 602. TeleSign is not permitted to own that idea. Thus, the
 8 only question is whether the '034 patent claims “significantly more” than the
 9 abstract idea itself. It does not.

10 **C. *Alice* Step 2: The Asserted Claims are Not Patent-Eligible**
 11 **Applications of the Abstract Idea**

12 In the second step of the *Alice* analysis, the court must determine whether the
 13 claims contain some additional “inventive concept” sufficient to ‘transform’ the
 14 claimed abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357.
 15 The '034 patent claims fail *Alice*'s second step because the claims do not contain
 16 any such “additional features” sufficient “to ensure that the [claims] [are] more than
 17 a drafting effort designed to monopolize the [abstract idea].” *Id.* (quoting *Mayo*,
 18 132 S. Ct. at 1297).

19 The claims of the '034 patent suffer from the same basic defect as those in
 20 *Alice*. The only “additional” limitations are basic features of a modern telephone
 21 system, including (1) a communications network equipped to handle telephone calls
 22 and data communications from various devices, including landline phones, mobile
 23 phones, and VOIP phones; and (2) a database for storing various characteristics
 24 associated with a particular telephone number. But using a telephone network and
 25 a database is far short of an “inventive concept sufficient to transform the claimed
 26 abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357
 27 (quoting *Mayo*) (internal quotes omitted).

28

1 To the contrary, these “additional” limitations in the claims were simply
 2 inherent features of modern telecommunications networks that were already in
 3 existence when the ’034 patent was filed. The ’034 patent itself acknowledges
 4 that, by 2005, modern telecommunications networks allowed for devices that are
 5 not tied to a particular physical location:

6 [It has been found that with the advent of different telephone systems,
 7 such verification can still lead to access by fraudulent users. *Aside*
 8 *from the plain old telephone service (POTS) which utilizes landline*
 9 *telephones, there now exist cellular phones, voice over internet*
 10 *protocol (VOIP) phones, etc.*

11 (’034 patent, 1:44-49 (emphasis added).)

12 When all phones were landlines, one could verify the address associated with
 13 a particular phone number simply by looking up the caller’s name and/or phone
 14 number in a telephone book. (*See, e.g.*, Ex. 5.) However, once networks began to
 15 include mobile and VOIP phones, a telephone number was no longer necessarily
 16 tied to a physical address. (*See, e.g.*, ’034 patent, 1:46-61.) Accordingly, network
 17 operators looked to other identifying information associated with a particular phone
 18 number, such as its geographic location (equivalent to the address associated with a
 19 landline), type (which by 2005 included mobile or VOIP, instead of just landline),
 20 and carrier (instead of single carrier for a particular geographic area, users could
 21 then select from a variety of wireless and VOIP providers). (*See, e.g.*, Ex. 4 at 4-11
 22 (’034 patent file history, 11/5/09 office action at 2-9, citing U.S. Patent No.
 23 7,054,417 (“Casey”)); Ex. 9 at 2:19-3:12, Fig. 1.) Authentication systems that
 24 relied on a verification code transmitted to a user’s telephone were also well
 25 known. (*See, e.g.*, Ex. 4 at 18-25 (’034 patent file history, 4/26/10 office action at
 26 2-9, citing U.S. Patent No. 6,934,858 (“Woodhill”)); Ex. 10 at 8:5-9:9, Figs. 2A-B.)

27 Courts have repeatedly found that common networking features do not
 28 transform an abstract idea into a patent-eligible invention. In *Comcast IP Holdings*

1 v. *Sprint Communications*, for example, the court held that generic references to a
 2 “telephony network” and an “application” were not sufficient to render the claimed
 3 “telephony network optimization method” patentable. No. 12-205-RGA, 2014 WL
 4 3542055, at *14-15 (D. Del. July 16, 2014) (finding claim invalid because it
 5 “merely covers the application of what has for a long time been conducted solely in
 6 the mind to modern, computerized, telephony networks”); *see also Pragmatus Tel.,*
 7 *LLC v. Genesys Tel. Labs., Inc.*, No. 14-CV-26-RGA, 2015 WL 4128963, at *12 (D.
 8 Del. July 9, 2015) (elements such as “automated call distribution system,” “network
 9 service,” “terminal,” “data,” and “Internet Protocol (IP) address” do not transform
 10 an abstract idea into “something more”). Other cases confirm that reciting generic
 11 elements like a database, telephone, or network does not make a claim patent-
 12 eligible. *See, e.g., Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792
 13 F.3d 1363, 1368 (Fed. Cir. July 6, 2015) (“The recited elements, e.g., a database, a
 14 user profile . . . , and a communication medium, are all generic computer
 15 elements.”); *Cyberfone Sys, LLC. v. CNN Interactive Group, Inc.*, 558 Fed. App’x.
 16 988, 993 (Fed. Cir. 2010) (“The ‘telephone’ recited in claim 1 is not a specific
 17 machine, and adds nothing of significance to the claimed abstract idea.”); *buySAFE,*
 18 *Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer
 19 receives and sends the information over a network . . . is not even arguably
 20 inventive.”).

21 The ’034 patent can take no refuge in the Federal Circuit’s decision in *DDR*
 22 *Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014)—the lone
 23 post-*Alice* decision in which the Federal Circuit has sustained a patent’s validity
 24 under § 101. None of the ’034 patent claims solve a challenge particular to the
 25 Internet, which the Federal Circuit found sufficient in *DDR Holdings*. *See* 773 F.3d
 26 at 1257 (“[T]hese claims stand apart because they do not merely recite the
 27 performance of some business practice known from the pre-Internet world along
 28 with the requirement to perform it on the Internet. Instead, the claimed solution is

1 necessarily rooted in computer technology in order to overcome a problem
 2 specifically arising in the realm of computer networks.”).

3 Further confirming that the ’034 patent claims are not inventive is the fact
 4 that the claimed verification process does no more than a human could do with a telephone and a directory. For example, a human operator (“Bob” in the
 5 hypothetical shown in Section III.B above) can receive a phone number from a user (“Alice” in the same hypothetical), look up that number in the directory to
 6 determine various characteristics associated with the number, call the user at the
 7 number provided, communicate a verification message to and receive a verification
 8 message from the user over the phone, and then register the user by entering her
 9 identity and/or other information in a ledger. (See ’034 patent, cl. 1; § III.B, *supra*.)

12 While it may be faster to automate the verification process described above,
 13 there is nothing inventive about using a network or a database to simply do more
 14 quickly or efficiently what a human could otherwise accomplish. “To salvage an
 15 otherwise patent-ineligible process, a computer must be integral to the claimed
 16 invention, facilitating the process in a way that a person making calculations or
 17 computations could not. . . . [T]he fact that the required calculations could be
 18 performed more efficiently via a computer does not materially alter the patent
 19 eligibility of the claimed subject matter.” *Bancorp Servs., L.L.C. v. Sun Life*
 20 *Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012); *see also SiRF Tech., Inc. v.*
 21 *Int'l Trade Comm'n*, 601 F.3d 1319, 1333 (Fed. Cir. 2010) (“In order for the
 22 addition of a machine to impose a meaningful limit on the scope of a claim, it must
 23 play a significant part in permitting the claimed method to be performed, rather
 24 than function solely as an obvious mechanism for permitting a solution to be
 25 achieved more quickly, i.e., through the utilization of a computer for performing
 26 calculations.”).

27 In short, the recitation of generic networking technology in claim 1 of the
 28 ’034 patent is insufficient to transform the abstract idea of verifying a person’s

1 identity using a phone number into patent-eligible subject matter under *Alice*.
 2 Claim 1 is therefore invalid under § 101.

3 **D. Claims 1 Is Representative of All Other '034 Patent Claims**

4 The Federal Circuit has made clear that, for purposes of determining patent
 5 eligibility under *Alice*, it is sufficient to examine a subset of the claims as long as
 6 “the claims of the asserted patents are substantially similar in that they recite little
 7 more than the same abstract idea.” *Content Extraction & Transmission LLC v.*
 8 *Wells Fargo Bank, NA*, 776 F.3d 1343, 1348-49 (Fed. Cir. 2014) (noting that
 9 additional limitations in the other claims recite only “well-known, routine, and
 10 conventional functions”). In this case, as in *Content Extraction*, all other claims of
 11 the '034 patent are directed to the same abstract idea as representative claim 1:
 12 using a telephone number to authenticate and register a user.

13 Focusing first on the remaining independent claims, the only other
 14 independent claims in the '034 patent (claims 15 and 26) are method claims that,
 15 like claim 1, recite a “process for telephonically registering a user over one or more
 16 communication networks through determining characteristics of a telephone
 17 number.” ('034 patent, 11:38-40, 12:40-42.) This language from the preamble
 18 common to all three independent claims confirms that all three are directed to the
 19 same abstract idea discussed in Section III.B above. In fact, as shown in the chart
 20 attached hereto as Appendix A, all elements recited in claims 15 and 26 are nearly
 21 identical to limitations recited in claim 1 and the claims that depend from it. As
 22 such, claims 15 and 26 are “substantially similar” to claims 1 and thus are invalid
 23 under § 101 for the same reasons discussed in Sections III.B and C above. *See*
 24 *Content Extraction*, 776 F.3d at 1348.

25 Turning next to the dependent claims, the table below lists the claims that
 26 depend from independent claim 1, along with the hypothetical human activity that
 27 corresponds to those claims:

28

1	'034 patent, claim 2	Human activity
2	The process of claim 1, including the step 3 of creating or providing access to an 4 electronic database containing a plurality 5 of telephone numbers, and characteristics 6 of each of the telephone numbers.	As discussed in Section III.A.4 7 above, regional telephone service 8 providers (such as the “Baby Bells”) 9 compile, publish, and distribute 10 phone books that list phone numbers 11 along with corresponding names and 12 addresses.
9	'034 patent, claim 3	Human activity
10	The process of claim 2, including the step 11 of querying the database to determine if 12 the telephone number is within the 13 database.	Bob checks to see if Alice’s phone 14 number is listed in the phone book. 15 As discussed in Section III.A.4 16 above, Bob knows the carrier and 17 geographic area associated with 18 Alice’s number (and thus which 19 phone book to use) based on the area 20 code and/or next three digits of 21 Alice’s number.
22	'034 patent, claim 4	Human activity
23	The process of claim 1, wherein the 24 determining the phone type characteristic 25 comprises determining whether the 26 telephone number is associated with a 27 landline telephone, cellular telephone, or a 28 voice over internet protocol telephone.	Bob knows Alice’s phone number is 29 associated with a landline because 30 traditional phone books list only 31 landline numbers.
32	'034 patent, claim 5	Human activity
33	The process of claim 1, including the step	Bob knows Alice’s phone number is

1 of determining whether the telephone 2 number is a non-geographic telephone 3 number, fixed voice over internet protocol 4 telephone number, prepaid cellular 5 telephone number, or a direct inward 6 dialing or automatically forwarding 7 telephone number.	associated with a landline (and therefore <u>not</u> associated with some other type of phone) because traditional phone books list only landline numbers.
8 '034 patent, claim 6	Human activity
9 The process of claim 1, wherein 10 determining the geographic characteristics 11 includes the step of determining at least 12 one of the time zone, country, state, 13 county, city, zip code and metro area of 14 the phone number.	As discussed in Section III.A.4 above, traditional phone books identify the city, state, and street address associated with every listed phone number.
15 '034 patent, claim 7	Human activity
16 The process of claim 1, wherein the 17 receiving step comprises using caller 18 identification upon receiving a telephone 19 number or obtaining the telephone number 20 from a form.	Bob gets Alice's phone number either by using caller ID or by reading it off of a form.
21 '034 patent, claim 8	Human activity
22 The process of claim 1, including the step 23 of creating a telephone connection by 24 receiving or making a telephone call to 25 determine at least one of: quality of 26 connection, pitch and frequency of ring, 27 how long the phone rings, and time to	When Bob calls Alice at the phone number she provided, he counts the number of rings before Alice answers.

1 establish a connection.	
2 '034 patent, claim 9	Human activity
3 The process of claim 1, including the step 4 of informing a third party of the 5 determined telephone number 6 characteristics.	Bob sends Alice's phone number characteristics to a third party, such as a credit reporting agency or local library.
7 '034 patent, claim 10	Human activity
8 The process of claim 1, including the step 9 of comparing the determined 10 characteristics of the telephone number 11 with previously provided corresponding 12 verification information.	Bob compares the information he looked up in a phone book with information Alice previously provided, for example in an application for a credit card or library card.
13 '034 patent, claim 11	Human activity
14 The process of claim 1, including the step 15 of denying or granting access to a web-site 16 or system upon determining the 17 characteristics of the telephone number.	After looking up Alice's information in a phone book, Bob grants Alice access to a resource, for example by issuing her a credit card or library card.
18 '034 patent, claim 12	Human activity
19 The process of claim 1, including the steps 20 of providing an online registration form to 21 a registrant and receiving an at least 22 partially completed online registration 23 form, including the registrant's telephone 24 number.	Bob sends Alice a registration form, such as an application for a credit card or library card. Alice fills in her telephone number and sends the form back to Bob.
25 '034 patent, claim 13	Human activity

<p>1 The process of claim 12, including the 2 steps of establishing a telephonic 3 connection with the registrant through the 4 registrant telephone number, 5 communicating a registration code to the 6 registrant, and receiving the registration 7 code from the online registration form or a 8 telephone verification system to permit 9 access to the web-site or system.</p>	<p>Bob calls Alice to give her a confirmation number, and Alice fills in the confirmation number on the registration form before sending it to Bob.</p>
<p>10 '034 patent, claim 14</p>	<p>Human activity</p>
<p>11 The process of claim 2, including the step 12 of adding a telephone number and 13 determined telephone number 14 characteristics to the database.</p>	<p>As discussed in Section III.A.4 above, regional telephone service providers (such as the “Baby Bells”) add phone numbers and corresponding names and addresses to the phone books they compile, publish, and distribute.</p>

18
19 Just as with claims 1, these additional limitations recite only well-known, routine,
20 and conventional elements of modern telecommunications networks that are
21 insufficient to transform the abstract idea of using a phone number to authenticate
22 and register a user into patent-eligible subject matter under § 101. *See Content*
23 *Extraction*, 776 F.3d at 1349; § III.C, *supra*. And as shown in the chart attached
24 hereto as Appendix A, the claims that depend from independent claims 15 and 26
25 include no additional limitations sufficient to change the analysis. Thus, because
26 all claims in the '034 patent are substantially similar to claim 1 in that they recite
27 little more than the same abstract idea, all claims of the '034 patent are invalid for
28 the same reasons discussed in Sections III.B and C above.

1 **IV. THE '920 AND '038 PATENTS ARE INVALID UNDER 35 U.S.C. § 101**

2 Similar to the '034 patent, the '920 and '038 patents relate to using a
 3 telephone number to confirm (or “re-verify”) the identity of a previously registered
 4 user. (See '920 patent, Abstract, claim 1.) Because the claims of the '920 and '038
 5 patents merely implement the abstract idea of reverification using a telephone
 6 system and the Internet—by requiring that a verification code be sent via a
 7 telephone connection and entered via a website—they fail to add an inventive
 8 concept sufficient to transform the abstract idea into patent-eligible subject matter.

9 **A. Factual Background for the '920 and '038 Patents**

10 The '920 patent, titled “Registration, Verification and Notification System,”
 11 was filed on October 5, 2006, and issued on June 11, 2013. The '920 patent relates
 12 to a method for confirming a previously registered user’s identity via telephone.
 13 (D.I. 1-2, '920 patent, 1:6-9.)

14 The '038 patent was filed as a continuation of the '920 patent on July 11,
 15 2013—the same day the '920 patent issued—and issued on April 1, 2014. The '038
 16 patent shares the '920 patent’s title (“Registration, Verification and Notification
 17 System”) and written description. Like the '920 patent, the '038 patent relates to
 18 confirming a previously registered user’s identity via telephone. (D.I. 1-3, '038
 19 patent, 1:19-23.)

20 **1. The '920 and '038 Patent Claims**

21 The '920 patent has only a single independent claim, which recites the
 22 following limitations:

23 1. A verification and notification process, comprising:

24 **receiving information** responsive to at least part of a registration form
 25 that is presented to the registrant on a web-site, the received information
 26 including at least one registrant electronic contact;
 27 verifying the received registrant electronic contact, wherein verifying the
 28 received registrant electronic contact includes:

1 **establishing a first telephonic connection** with the registrant using
 2 the received registrant electronic contact;
 3 **communicating a first communicated verification code** to the
 4 registrant through the first telephonic connection; and
 5 **receiving a first submitted verification code** after it is entered by the
 6 registrant via the web-site and
 7 **verifying the received registrant electronic contact** if the first
 8 submitted verification code is the same as the first communicated
 9 verification code;
 10 **establishing a notification event** associated with the registrant;
 11 **identifying an occurrence** of the established notification event; and
 12 after identifying the occurrence of the established notification event, re-
 13 verifying the registrant electronic contact, wherein re-verifying includes:
 14 **establishing a second telephonic connection** with the registrant using
 15 the verified registrant electronic contact;
 16 **communicating a second communicated verification code** to the
 17 registrant through the second telephonic connection; and
 18 **receiving a second submitted verification code** that is entered by the
 19 registrant via the web-site; and
 20 **re-verifying** the received registrant electronic contact if the second
 21 submitted verification code is the same as the second communicated
 22 verification code.

23 ('920 patent, cl. 1 (emphases added).) Thus, claim 1 of the '920 patent requires
 24 verifying a website user's phone number by sending a "verification code" to the
 25 user's phone, and "re-verifying" the user's phone number in the same manner upon
 26 the occurrence of some specified triggering event.

27 The two independent claims of the '038 patent are similar to claim 1 of
 28 the '920 patent. For example, claim 1 of the '038 patent is a method claim that is

1 substantially identical to claim '920 patent. The main difference between the two
2 is that claim 1 of the '038 patent adds an express requirement that the claimed
3 method be "implemented by a computing system." Claim 13 of the '038 patent, the
4 only other independent claim, merely claims a "non-transitory computer-readable
5 storage medium" that stores the instructions for performing the method of claim 1.

2. The '920 and '038 Patent Specification

7 Like the '034 patent, the specification shared by the '920 and '038 patents
8 acknowledges that requiring website users to identify themselves was well known
9 at the time the patent was filed, and that verifying a user's identity was
10 "fundamental." ('920 patent, 1:14-18, 1:30-34.) The specification characterizes the
11 problem addressed by the purported invention as follows:

[T]here is a continuing need for a method of verifying a registrant's identity, such as through the registrant's telephone number. There is also a continuing need for a method to notify a registrant, such as through the registrant's telephone number, or events which are established either by the individual registrant or the company through which the registrant is conducting services.

18 (Id., 1:62-2:1.) The '920 patent purports to solve this problem with "a process for
19 verifying the identity of a registrant, and utilizing the verification and/or
20 registration information to notify the registrant of predetermined events established
21 by either the registrant or the business." (Id., 3:54-58.)

3. The '920 and '038 Patent File Histories

23 During prosecution of the '920 patent, the Patent Office three times rejected
24 as obvious all claims directed only to verifying a website registrant's identity by
25 sending a verification code to the registrant's telephone. (Ex. 11 at 6-28, 29-52, 72-
26 80 ('920 patent file history, 6/29/11 Office Action, 2/3/12 Office Action, 2/13/13
27 Office Action, respectively).) The applicant was forced to amend the claims to add
28 a second verification process upon the occurrence of some specified event. (*See id.*

1 at 53-71 & 81-89 (8/2/12 Amendment & RCE, 4/3/13 Amendment.) Thus, to
 2 overcome the Examiner's rejections under § 103, the applicant relied on the
 3 repetition of the original verification process following the occurrence of a
 4 specified event.

5 The prosecution history of the patents-in-suit confirms that telephone-based
 6 authentication methods, including methods that rely on verification codes and
 7 characteristics associated with a user's telephone number, were well known at the
 8 time of the alleged inventions. During prosecution of the '920 patent, for example,
 9 the Examiner cited multiple prior art references that taught verifying the identity of
 10 an Internet user based on verification codes provided to the user's telephone. (*See*
 11 *id.* at 7-8, 31; Ex. 10, (Woodhill); Ex. 12, U.S. Patent No. 8,024,567 ("Han").) The
 12 Examiner also noted that all of the following were well known in the art:

- 13 • Sending a confirmation code to a registrant via electronic message;
- 14 • Providing a telephone number for a registrant to call and a
 confirmation number for the registrant to enter via keypad;
- 15 • Comparing information provided by a registrant to information stored
 in a database;
- 16 • Calling a registrant's telephone number upon the occurrence of an
 event concerning her account; and
- 17 • Notifying a user of unauthorized access to her account.

18 (Ex. 11 at 10-27 ('920 patent file history, 6/29/11 Office Action).) Based on the
 19 prior art, the Examiner rejected all claims directed only to verifying a website
 20 registrant's identity by sending a verification code to the registrant's telephone. (*Id.*
 21 at 6-28, 29-52, 72-80 (6/29/11 Office Action, 2/3/12 Office Action, 2/13/13 Office
 22 Action).) And as explained below, the patents-in-suit do nothing more than
 23 implement abstract ideas using these conventional technologies.

24 **B. Alice Step 1: Claim 1 of the '920 Patent Is Directed to an Abstract
 25 Idea**

1 Claim 1 of the '920 patent merely breaks up the abstract idea of using a
 2 telephone number to confirm the identity of a previously registered user into a
 3 series of basic steps. *See Ultramercial III*, 772 F.3d at 714. Stripped of its generic
 4 components, there is nothing more than the idea of calling a website user's phone to
 5 verify the user's identity, and then doing the same thing again when there is a
 6 reason to do so.

7 As the hypothetical below makes clear, other than the conventional steps of
 8 communicating by phone over a network and entering information on a website,
 9 every limitation of claim 1 can be performed solely by human activity:

'920 patent, claim 1	Human activity
A verification and notification process, comprising:	[The preamble merely makes clear that the claimed process includes "verification" and "notification"]
receiving information responsive to at least part of a registration form that is presented to the registrant on a web-site, the received information including at least one registrant electronic contact;	While applying for a credit card, Alice sends her phone number to Bob.
verifying a received registrant electronic contact, wherein verifying the received registrant electronic contact includes:	[This language merely introduces the "verification" process described in the steps described below.]
establishing a first telephonic connection with the registrant using the received registrant electronic contact;	Bob calls Alice at the phone number she provided.
communicating a first communicated verification code to the registrant through	Bob asks Alice for the answer to a challenge question, such as the last

28

1	the first telephonic connection; and	four digits of her social security number.
2	receiving a first submitted verification code after it is entered by the registrant via the web-site and verifying the received registrant electronic contact if the first submitted verification code is the same as the first communicated verification code;	Alice answers with the four digits, and Bob confirms that Alice answered correctly.
3	establishing a notification event associated with the registrant;	Bob decides to follow up with Alice the first time she uses her new credit card.
4	identifying an occurrence of the established notification event; and	Bob recognizes that Alice has used her new credit card.
5	after identifying the occurrence of the established notification event, re-verifying the registrant electronic contact, wherein re-verifying includes:	Bob repeats the verification process, using the steps described below.
6	establishing a second telephonic connection with the registrant using the verified registrant electronic contact;	Bob calls Alice at the phone number she provided.
7	communicating a second communicated verification code to the registrant through the second telephonic connection;	Bob asks Alice for the answer to a challenge question, such as her birth date.
8	receiving a second submitted verification code that is entered by the registrant via the web-site; and	Alice answers with her birth date.
9	re-verifying the registrant electronic	Bob confirms that Alice answered

1 contact if the second submitted	correctly.
2 verification code is the same as the second	
3 communicated verification code.	

4
5 The only difference between the limitations of claim 1 and the long-practiced
6 human activity that mirrors them is Alice's use of a website to send her phone
7 number to Bob and to enter the answers to Bob's challenge questions.

8 The '920 patent specification confirms that the concept of re-verifying a
9 person's identity has long been applied to commercial transactions:

10 The business may also elect to automatically or manually require
11 consumers to reverify after initial verification. . . . For example, this
12 may be used to verify that the consumer can still be reached at the
13 given telephone number. This process may also occur when a
14 consumer requests another consumer to be verified, or even if the
15 consumer chooses to be reverified at certain intervals, for example, to
16 rest assured that the system is tracking their account. ('920 patent,
17 11:46-56.)

18 Verifying (or "re-verifying") a customer's identity is a "longstanding commercial
19 practice," and as such is a "method of organizing human activity." *Alice*, 134 S. Ct.
20 at 2356-57. *See id.* And under *Alice*, fundamental principles for "organizing
21 human activity" are abstract ideas. *See id.*

22 The concept of using a telephone to re-verify a website user's identity is
23 similar to the abstract idea claimed in the '034 patent (using a telephone number to
24 authenticate and register a user) and the abstract ideas held to be unpatentable in the
25 cases discussed in Section III.B above. *See, e.g., Bilski v. Kappos*, 130 S. Ct. 3218,
26 3218 (2010) (use of a computer intermediary that allowed a consumer with a
27 computer to perform the same task that "would presumably have been done by a
28 human broker in the prior art"); *CyberSource Corp. v. Retail Decisions, Inc.*, 654

1 F.3d 1366, 1372 (Fed. Cir. 2011) (detecting credit card fraud using “Internet
 2 address” information); *TLI Comm’ns*, 87 F. Supp. 3d 773, 785 (E.D. Va. 2015).
 3 (“the abstract idea of taking, organizing, classifying, and storing photographs”);
 4 *Mortgage Grader, Inc. v. Costco Wholesale Corp.*, No. SACV-13-00043-AG, 2015
 5 WL 778125, at *6 (C.D. Cal. Jan. 12, 2015) (“allowing users to assess their
 6 borrowing ability without revealing their identities to the lenders until they wish to
 7 do so”); *CMG Financial Servs., Inc. v. Pacific Trust Bank, F.S.B.*, 50 F. Supp. 3d
 8 1306, 1325 (C.D. Cal. 2014) (“paying down a mortgage early when funds are
 9 available and borrowing funds as needed to reduce the overall interest charged by
 10 the mortgage”). In short, the abstract idea of re-verifying a person’s identity using
 11 a phone number has been a “tool” in the “storehouse of knowledge” that is “free to
 12 all men and reserved exclusively to none” at least since the introduction of the
 13 phone book. *See Bilski*, 561 U.S. at 602. Thus, just as with the ’034 patent, the
 14 only question is whether the ’920 and ’038 patents claim “significantly more” than
 15 the abstract idea itself. And just like the ’034 patent, they do not.

16 **C. Alice Step 2: The Asserted Claims are Not Patent-Eligible
 17 Applications of the Abstract Idea**

18 The ’920 and ’038 patent claims fail *Alice*’s second step because they do not
 19 contain “additional features” sufficient “to ensure that the [claims] [are] more than
 20 a drafting effort designed to monopolize the [abstract idea].” *Alice*, 134 S. Ct. at
 21 2357 (quoting *Mayo*, 132 S. Ct. at 1297). Those claims suffer from the same defect
 22 as those in the ’034 patent and in *Alice*. The only “additional” limitations are a
 23 telephone and a website. But using a telephone to send information that is then
 24 entered via a website is far short of an “inventive concept sufficient to transform the
 25 claimed abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357
 26 (quoting *Mayo*) (internal quotes omitted).

27 As explained in Section III.C above, courts have repeatedly found that
 28 common networking features do not transform an abstract idea into a patent-eligible

1 invention. *See, e.g., Comcast IP Holdings v. Sprint Communications*, No. 12-205-
 2 RGA, 2014 WL 3542055, at *14-15 (D. Del. July 16, 2014) (finding claim invalid
 3 because it “merely covers the application of what has for a long time been
 4 conducted solely in the mind to modern, computerized, telephony networks”);
 5 *Pragmatus Tel., LLC v. Genesys Tel. Labs., Inc.*, No. 14-CV-26-RGA, 2015 WL
 6 4128963, at *12 (D. Del. July 9, 2015) (elements such as “automated call
 7 distribution system,” “network service,” “terminal,” “data,” and “Internet Protocol
 8 (IP) address” do not transform an abstract idea into “something more”); *Cyberfone*
 9 *Sys, LLC. v. CNN Interactive Group, Inc.*, 558 Fed. App’x. 988, 993 (Fed. Cir.
 10 2010) (“The ‘telephone’ recited in claim 1 is not a specific machine, and adds
 11 nothing of significance to the claimed abstract idea.”); *buySAFE, Inc. v. Google,*
 12 *Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends
 13 the information over a network . . . is not even arguably inventive.”).

14 The Federal Circuit’s decision in *DDR Holdings, LLC v. Hotels.com, L.P.*,
 15 773 F.3d 1245, 1256 (Fed. Cir. 2014) is just as inapplicable to these claims as it is
 16 to those of the ’034 patent. Although the ’920 and ’038 patent claims require that
 17 the user enter a verification code via a website, the challenge of verifying and re-
 18 verifying a user’s identity is neither particular to the Internet nor rooted in computer
 19 technology. *See DDR Holdings*, 773 F.3d at 1257 (“[T]hese claims stand apart
 20 because they do not merely recite the performance of some business practice known
 21 from the pre-Internet world along with the requirement to perform it on the Internet.
 22 Instead, the claimed solution is necessarily rooted in computer technology in order
 23 to overcome a problem specifically arising in the realm of computer networks.”).

24 The prosecution history further confirms that there was nothing inventive
 25 about using a website registrant’s telephone number to verify the registrant’s
 26 identity. As explained in Section IV.A.3 above, the Patent Office repeatedly
 27 rejected claims that included only a single verification step as obvious under 35
 28 U.S.C. § 103. To overcome those rejections, the applicant introduced a new claim

1 that added a second verification step. The table below makes clear that the
 2 verification process the Examiner found to be obvious is virtually identical to the
 3 verification process in the issued '920 patent claims that is simply repeated upon
 4 the occurrence of a specified event:

'920 patent, cancelled claim 28	'920 patent, claim 1 as issued
6 A verification and notification 7 process, comprising:	A verification and notification process, comprising:
8 receiving information responsive to at 9 least part of a registration form that is 10 presented to the registrant on a web-site, 11 the received information including a 12 registrant electronic contact and at least 13 part of a name or an address;	receiving information responsive to at least part of a registration form that is presented to the registrant on a web-site, the received information including at least one registrant electronic contact;
14 comparing the received information 15 from the registration form to a database 16 containing personal identifying 17 information; and	[No corresponding step in claim 1 as issued.]
18 verifying a received registrant electronic 19 contact by:	verifying a received registrant electronic contact, wherein verifying the received registrant electronic contact includes:
21 establishing a telephonic connection 22 with the registrant using the received 23 registrant electronic contact;	establishing a first telephonic connection with the registrant using the received registrant electronic contact;
24 communicating a verification code to 25 the registrant through the first 26 telephonic connection; and	communicating a first communicated verification code to the registrant through the first telephonic connection; and

28

1 receiving a verification code after it is 2 entered by the registrant via the web-site 3 and verifying the received registrant 4 electronic contact if the received 5 verification code is the same as the 6 communicated verification code and the 7 at least part of the name or the address is 8 identified in the database containing 9 personal identifying information.	receiving a first submitted verification code after it is entered by the registrant via the web-site and verifying the received registrant electronic contact if the first submitted verification code is the same as the first communicated verification code;
	[After establishing and identifying a notification event “re-verifying” the “registrant electronic contact” using the same process described above.]

15 (*See* Ex. 11 at 54, 82 (’920 patent file history).) In fact, the verification process in
16 the rejected claim is narrower than the verification process in the issued claims
17 because it requires verification of name and address information using a database,
18 in addition to a verification code. (*See id.*) And rather than challenge the
19 Examiner’s conclusion that the verification process of amended claim 28 is
20 obvious, the applicant chose to cancel that claim. (*See id.* at 82, 87.)

21 Thus, since a single iteration of this verification process does not supply the
22 “inventive step” required to transform the abstract idea into a patent-eligible claim,
23 claim 1 of the ’920 patent boils down to the following steps: (1) use a conventional
24 authentication process to verify a website user; (2) repeat that same conventional
25 authentication process when a “notification event” occurs. But, as explained in
26 Section IV.B above, those steps amount to nothing more than the longstanding
27 commercial practice of re-verifying a customer’s identity. *See Alice*, 134 S. Ct. at
28 2356-57.

1 Moreover, similar to the '034 patent, the '920 and '038 patents claim a
 2 process that does little more than a human could do with a telephone. For example,
 3 a human operator ("Bob" in the hypothetical shown in Section IV.B above) can
 4 receive a phone number from a user ("Alice" in the same hypothetical), call the user
 5 at the number provided, communicate a verification message to and receive a
 6 verification message from the user over the phone, and then confirm that the
 7 verification messages match. (*See* '920 patent, cl. 1; § IV.B, *supra*.) And as
 8 explained in Section III above, while it may be faster to automate the re-verification
 9 process described in the '920 patent, there is nothing inventive about using an
 10 Internet-connected computer to do what a human could otherwise do. *See Bancorp*
 11 *Servs.*, 687 F.3d at 1278; *SiRF Tech.*, 601 F.3d at 1333.

12 In short, the recitation of generic networking technology or a conventional
 13 authentication method in claim 1 of the '920 patent is insufficient to transform the
 14 abstract idea of re-verifying a person's identity using a phone number into patent-
 15 eligible subject matter under *Alice*. Claim 1 is therefore invalid under § 101.

16 **D. Claim 1 of the '920 Patent Is Representative of All Other '920**
 17 **Patent Claims and All '038 Patent Claims**

18 As explained in Section III.D above, it is not necessary to separately analyze
 19 all claims as long as "the claims of the asserted patents are substantially similar in
 20 that they recite little more than the same abstract idea." *Content Extraction &*
21 Transmission LLC v. Wells Fargo Bank, NA, 776 F.3d 1343, 1348-49 (Fed. Cir.
 22 2014). In this case, as in *Content Extraction*, all other claims of the '920 patent and
 23 all claims of the '038 patent are directed to the same abstract idea as representative
 24 claim 1 of the '920 patent: re-verifying a website user's identity via telephone.

25 The remaining claims of the '920 patent all depend from claim 1. The table
 26 below lists these dependent claims, along with the hypothetical human activity that
 27 corresponds to each one:

28

1	'920 patent, claim 2	Human activity
2	The process of claim 1, wherein the at least one 3 registrant electronic contact comprises at least 4 one registrant telephone number.	[This claim merely makes clear 5 that the contact information Alice sends to Bob includes Alice's phone number.]
6	'920 patent, claim 3	Human activity
7	The process of claim 2, wherein telephonic 8 connections are established through a registrant 9 telephone number.	[This claim merely makes clear 10 that when Bob calls Alice, he does so at the phone number Alice provided.]
11	'920 patent, claim 4	Human activity
12	The process of claim 2 further comprising: 13 notifying the registrant of the occurrence of the 14 established notification event by establishing a 15 telephonic connection with the registrant via a 16 registrant electronic contact.	Bob calls Alice to tell her that 17 her new credit card was used to make a purchase.
18	'920 patent, claim 5	Human activity
19	The process of claim 4 wherein notifying the 20 registrant comprises establishing a telephonic 21 connection with the registrant via a registrant 22 telephone number upon the occurrence of the 23 established notification event.	Bob calls Alice to tell her that 24 her new credit card was used to make a purchase.
25	'920 patent, claim 6	Human activity
26	The process of claim 2, wherein establishing a 27 first telephonic connection with the registrant comprises sending the registrant an electronic message using the registrant telephone number.	Instead of calling Alice at the 28 phone number she provided, Bob sends her a text message.

1	'920 patent, claim 7	Human activity
2	The process of claim 6, wherein the electronic 3 message includes the first communicated 4 verification code or provides means to obtain 5 the first communicated verification code.	Bob sends Alice a text message 6 asking her for the answer to a 7 challenge question, such as the 8 last four digits of her social 9 security number.
10	'920 patent, claim 8	Human activity
11	The process of claim 6, wherein the electronic 12 message comprises a text message.	Instead of calling Alice at the 13 phone number she provided, 14 Bob sends her a text message.
15	'920 patent, claim 9	Human activity
16	The process of claim 8, wherein the text 17 message is a short message service (SMS) 18 message sent to a registrant's telephone or SMS- 19 enabled device.	Instead of calling Alice at the 20 phone number she provided, 21 Bob sends her a text message.
22	'920 patent, claim 10	Human activity
23	The process of claim 6, wherein the electronic 24 message comprises a voice message.	When Bob calls Alice, he leaves 25 a message on her answering 26 machine.
27	'920 patent, claim 11	Human activity
28	The process of claim 6, wherein communication of at least one of the communicated verification codes to the registrant is via an automated message, and the process further comprises: detecting an answering machine message; and delaying a predetermined amount of time before playing the automated message.	When Bob calls Alice, he hears her answering machine pick up, waits for the beep, and then leaves a message.

1	'920 patent, claim 12	Human activity
2	The process of claim 11, wherein the automated 3 message includes the at least one of the 4 communicated verification codes.	Bob leaves Alice a message 5 asking her for the answer to a challenge question, such as the 6 last four digits of her social 7 security number.
8	'920 patent, claim 13	Human activity
9	The process of claim 1, wherein the website 10 informs the registrant that an electronic message 11 is being sent to the registrant via a registrant 12 provided telephone number.	When Alice sends her phone 13 number to Bob, she is informed 14 that Bob will send her a text 15 message.
16	'920 patent, claim 14	Human activity
17	The process of claim 1, further comprising 18 receiving an indication from the registrant 19 indicating that the registrant telephone number 20 requires an extension and an indication of 21 whether a live operator will answer a call to the 22 registrant telephone number.	When Alice sends her phone 23 number to Bob, she includes her 24 extension number and indicates 25 that Bob should provide it to the 26 operator who answers his call.
27	'920 patent, claim 15	Human activity
28	The process of claim 14, wherein establishing a 29 telephonic connection with the registrant comprises calling the registrant telephone 30 number, playing an automated message 31 directing the live operator to dial the extension, 32 and pausing a predetermined amount of time, 33 and wherein communicating a communicated 34 verification code to the registrant comprises	[This claim merely automates 35 the process of calling Alice's 36 phone number, asking the 37 operator to be connected to 38 Alice's extension, waiting for 39 Alice to answer, and then 40 asking Alice for the answer to a challenge question, such as the 41 last four digits of her social 42 security number.]

1	playing an automated message including the 2 communicated verification code.	last four digits of her social 3 security number.]
4	'920 patent, claim 16	Human activity
5	The process of claim 14, wherein establishing a 6 telephonic connection with the registrant 7 comprises calling the registrant telephone 8 number, pausing a predetermined amount of 9 time, automatically dialing the extension, and 10 pausing a predetermined amount of time, and 11 wherein communicating a communicated 12 verification code to the registrant comprises 13 playing an automated message including the 14 verification code.	[This claim merely automates 15 the process of calling Alice's 16 phone number, waiting for a 17 prompt to dial Alice's 18 extension, dialing Alice's 19 extension, waiting for Alice to 20 answer, and then asking Alice 21 for the answer to a challenge 22 question, such as the last four 23 digits of her social security 24 number.]
25	'920 patent, claim 17	Human activity
26	The process of claim 1, further comprising 27 comparing information provided by the 28 registrant in the registration form to a database containing personal identifying information.	Bob looks up Alice's name in a phone book and compares the listed address with the address Alice provided on her credit card application.
29	'920 patent, claim 18	Human activity
30	The process of claim 17, wherein the personal 31 identifying information includes at least one of: 32 a name, a telephone number, an address, an 33 email address, or a social security number.	Bob looks up Alice's name in a phone book and compares the listed address with the address Alice provided on her credit card application.
34	'920 patent, claim 19	Human activity

1	The process of claim 1, wherein the established 2 notification event pertains to fraud associated 3 with an account of the registrant.	4 Bob repeats the verification process the first time Alice's 5 credit card is used in a foreign country.
6	'920 patent, claim 20	Human activity
7	The process of claim 1, wherein the established 8 notification event is a request to access an 9 account associated with the registrant.	10 Bob repeats the verification process when someone calls to 11 check the balance on Alice's 12 credit card.
13	'920 patent, claim 21	Human activity
14	The process of claim 1, wherein the established 15 notification event is a transaction.	16 Bob repeats the verification process the first time Alice's 17 credit card is used.
18	'920 patent, claim 22	Human activity
19	The process of claim 1, wherein the established 20 notification event is a request to alter an account 21 associated with the registrant.	22 Bob repeats the verification process when someone asks to 23 change the password on Alice's 24 credit card account.

25 Just like claim 1, the additional limitations in the dependent claims recite
26 only well-known, routine, and conventional elements of websites and telephone
27 systems that are insufficient to transform the abstract idea of confirming a website
28 user's identity into patent-eligible subject matter under § 101. Accordingly, the
dependent claims of the '920 patent are substantially similar to representative claim
1, and fail the *Alice* test for the same reasons. *See Content Extraction*, 776 F.3d at
1349; §§ IV.B-C, *supra*.

29 Claim 1 of the '920 patent is also representative of all claims of the '038

1 patent. As noted in Section IV.A.1 above, the main difference between claim 1 of
 2 the '038 patent and claim 1 of the '920 patent two is that the former adds an express
 3 requirement that the claimed method be “implemented by a computing system.”
 4 Claim 13 of the '038 patent, the only other independent claim, merely claims a
 5 “non-transitory computer-readable storage medium” that stores the instructions for
 6 performing the method of claim 1. As shown in the chart attached hereto as
 7 Appendix B, the claims of the '038 patent are substantively identical to
 8 corresponding '920 patent claims and include no additional limitations sufficient to
 9 change the analysis. Thus, because all claims in the '920 and '038 patents are
 10 substantially similar to claim 1 of '920 patent, all claims of the '920 and '038
 11 patents are invalid for the same reasons discussed in Sections IV.B and C above.

12 **V. THE VALIDITY OF THE PATENTS-IN-SUIT IS RIPE FOR DECISION**

13 Defendant requests that the Court declare the Asserted Claims invalid now, at
 14 the pleadings stage, before TeleSign is allowed to further drain resources from the
 15 Court and from Twilio. As explained in Section II.B above, many other courts
 16 have done the same.

17 Judge Mayer of the Federal Circuit recently highlighted the value of deciding
 18 the validity of an asserted patent early in litigation. “[A]ddressing section 101 at
 19 the outset of litigation [has] a number of salutary effects,” including “conserv[ing]
 20 scarce judicial resources,” “provid[ing] a bulwark against vexatious infringement
 21 suits,” and “protect[ing] the public” by “weeding out those patents that stifle
 22 innovation and transgress the public domain.” *Ultramercial III*, 772 F.3d at 718-19
 23 (Mayer, J., concurring). This Court should realize those benefits in this case by
 24 granting Defendant’s motion to dismiss and joining the wave of courts across the
 25 country who have helped to “clear[] the patent thicket” by dismissing infringement
 26 cases based on facially invalid patents at the pleadings stage. *Id.* at 719.

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28

VI. CONCLUSION

The claims of the patents-in-suit do no more than describe a problem, announce purely functional and generic steps that purport to solve that problem, and then recite standard operations to perform those steps without any “inventive concept” or anything “significantly more than” an abstract idea. According to Judge Bryson of the Federal Circuit, sitting by designation in a case involving patent claims no less abstract and technologically vacuous than those at issue here, the problem with such patents is that they contribute nothing to the public store of knowledge while at the same time depriving the public of the benefits of the real work of true invention performed by someone else at a later date:

[S]uch patents, although frequently dressed up in the argot of invention, simply describe a problem, announce purely functional steps that purport to solve the problem, and recite standard computer operations to perform some of those steps. The principal flaw in these patents is that they do not contain an “inventive concept” that solves practical problems and ensures that the patent is directed to something “significantly more than” the ineligible abstract idea itself. As such, they represent little more than functional descriptions of objectives, rather than inventive solutions. In addition, because they describe the claimed methods in functional terms, they preempt any subsequent specific solutions to the problem at issue.

Loyalty Conversion Sys. Corp. v. Am. Airlines, Inc., 66 F. Supp. 3d 829, 845 (E.D. Tex. 2014) (citations omitted). These words could have been written for this case, which deserves the same result.

Twilio respectfully request that the Court grant judgment on the pleadings that all claims of the '034, '920, and '038 patents are invalid under 35 U.S.C. § 101.

1 Dated: January 5, 2016

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3) on January 5, 2016.

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